

**Amendment to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1. (Previously presented) Silanised, structurally modified pyrogenically produced silicas, characterized by vinyl groups or vinyl silyl groups fixed to the surface, hydrophobic groups such as trimethyl silyl and/or dimethyl silyl and/or monomethyl silyl additionally being fixed to the surface, having the following physico-chemical properties:

BET surface area m <sup>2</sup> /g:	25 - 400
Average primary particle size nm:	5 - 50
pH:	3-10
Carbon content %:	0.1-10
DBP value %:	< 200 or not determinable.

Claim 2. (Currently amended) The process for producing the silanised, structurally modified silicas according to claim 1, comprising a) treating pyrogenically produced silicas with a surface-modifying agent to form a mixture, b) heat treating the mixture, and c) structurally modifying the heat treated mixture by mechanical action to destructure the silica and recovering the silanized, structurally modified pyrogenically produced silica.

Claim 3. (Previously presented) The process for producing the silanised, structurally modified silicas according to claim 2, wherein the silica treating step includes spraying the silicas first with water and then with the surface-modifying agent.

Claim 4. (Previously presented) The process for producing the silanised, structurally modified silica according to claim 2, wherein the silica treating step includes treating the silica with the surface-modifying agent in vapour form.

Claim 5. (Previously presented) The process for producing the silanised, structurally modified silica according to claim 3, further comprising post-grinding and/or conditioning the structurally modified silica.

Claim 6. (Previously presented) The process for producing the silanised, structurally modified silica according to claim 4, further comprising grinding and/or conditioning the structurally modified silica.

Claim 7. (Previously presented) A silicone rubber containing as a filler the silanised, structurally modified silica according to claim 1.

Claim 8. (Previously presented) The process according to claim 3 further comprising, prior to heat treatment step, further mixing the treated silica mixture.